

EVOLUTION OF QUALITY AND INSECT CONTROL IN A FLOUR MILL

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The ban of EDB in the early 80's began our evolution process. We stepped up sanitation practices and fogged, several times a year, with Pyrethrins and used Malathion as a residual treatment for walls, floors and crevices.

Results were not perfect so we considered other options:

- (1) Freeze out – not practical because our temperatures really aren't cold enough, for long enough.
- (2) A group of us got Pesticide Applicator Licenses.
- (3) Methyl bromide – tried three treatments over 15 years:
 - 1st - done by contractor – results were not satisfactory.
 - 2nd - we did ourselves, same result.
 - 3rd - another contractor convinced us to try Methyl Bromide one more time. Our conclusion was that we just couldn't hold the proper concentration for long enough.
- (4) Phostoxin
 - done at least 10 times
 - results are the best
 - only minor electrical damage so far, probably because our relative humidity in summer is generally very low. July and August are a virtual desert in the Okanagan Valley of British Columbia.
- (5) Heat Sterilization
 - rented Aggreko heaters, results were better than Methyl Bromide but not as good as Phosphene.
- (6) Heat/C02/Phosphine
 - researched thoroughly, seemed possible except C02 cost, availability and containment were somewhat beyond what we could manage.

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- (7) Heat/D/E (used Protect It-enhanced Diatomaceous Earth)
 - results were better than Methyl Bromide, not as good as Phostoxin; however, we are convinced that, as we gain experience, we will increase effectiveness, reduce cost and down time.

CHART OF MAJOR TREATMENTS

	<u>Cost</u>	<u>Down Time</u>	<u>Damage</u>
Phostoxin	16,000 (In House)	90 hours	Minor Electrical
Methyl Bromide	30,000 (Contractor)	40 hours	None
Heat	40,000 (heater rental) 28,000	45 hours	Melted some plastic parts and fuses
Heat/D.E.	9,000 (In House with contractor doing dusting)	48 hours	None